

EDUCATION AND PUBLIC OUTREACH OPERATIONS PLAN (VOYAGER)

For over the past decade the Voyager E/PO program has worked closely with the Sun-Earth Connection Forum to enhance the breadth and knowledge of science, mathematics, and technology for K-12 and higher education. The Voyager mission is contributing to a diverse set of programs that are improving basic scientific literacy among students. Voyager is engaging the public at large via a redesigned interactive web site, an educational based and multimedia CD-ROM, 25th anniversary video animations covering the history and accomplishments of the mission, and via on-going library and museum exhibits and partnerships nationwide.

3. ENGAGING THE PUBLIC PLANS FOR FY04-FY07

The NASA/JPL Solar System Ambassadors Program is expected to expand from its current 275 volunteers (2002) by 15-25% each year with a 4-year goal of 2-3 [3 per state would only be 150 total. 4 year compounded growth would result in 8-11 per state] Ambassadors per state. Voyager will conduct a minimum of one training session each year for new Ambassadors and additional training at significant mission milestones. Ambassadors will be exposed to key personnel while examining new science results from the Interstellar Mission.

Working with The Space Place team and Project Management, an article highlighting Voyager's 90 AU milestones will be developed and disseminated. Potential audience is estimated to be in the millions. In addition, E/PO materials and exhibits will be rotated two times per quarter to participating Space Place partners, which include rural libraries, zoos, science centers, and museums. Average exposure is expected to be 50,000 people per year at each partnering center.

"Community Nights": Working in partnership with the Arizona State University Mars K-12 Education Department, Voyager will participate in the development of Solar System kits. These kits will be beta-tested in mid-summer 2003 by 100 Girl Scout

Troops throughout the United States and will include SEC science and information regarding the interstellar mission.

The portable exhibits which can be loaned to educational facilities, community organizations, and other NASA EPO partners, will be developed. The kit will also include direct information regarding the history of Voyager and the Golden record, activities to use during the exhibit, and directions on the exhibit layout.

Continue to partner with the Deep Space Network (DSN) and other JPL projects in the Barstow Space Expo for educators and students near the Goldstone Deep Space Communications Complex. (Paragraph moved from Conferences/Workshops)

3.1 World Wide Web

The Voyager web site will continue to be updated quarterly.

3.2 Public Information:

Working with NASA/JPL Media Relations office, The Voyager Project Scientist has developed a video animation for news distribution when Voyager reaches the Termination Shock. The project office, working with JPL and NASA media relations, will plan press releases and live shots at the 90 AU milestone.

4. INFORMAL EDUCATION:

Taking direction from the SEC Forum, the Voyager Project will broaden the Student Interview Program to include other SEC missions. The program would essentially create Junior Ambassadors for local school districts. Estimated exposure for SEC missions with a minimum of two student ambassadors per SEC mission per year would be ~100,000 students reached.

By providing opportunities of K-12 teacher training, enhancing curriculum and engaging students in NASA related career fields, the Voyager project

plans to support Presidential Executive Order 13021: Tribal College, Tribal Pre College Initiatives. The project will work with the JPL Tribal College Initiative in the Minority Education Initiatives in the Education and Public Outreach Office.

Continue participation and support in LA's BEST Program.

4.1 Conferences/Workshops

Continue to support educational conferences requiring NASA Center presence, i.e., NSTA, CSTA, and Space Congress.

5. FORMAL EDUCATION

The Voyager Project Office, with support from the science teams, proposes an educator workshop at JPL around the 90 AU milestone. This workshop will consist of lectures from team members and classroom activities with the goal of providing educators an explanation and understanding of the termination shock crossing and its significance.

6. E/PO PRODUCTS

The project will develop products to support the education and public outreach programs. These will include, as appropriate, brochures, decals, educational content for web sites, and package paraphernalia for conferences and workshops. Educational products will be distributed through the NASA Education Resource Centers and through distribution to schools involved in the various E/PO programs in which the Voyager project is involved.

Education and Public Outreach Operations Plan (ULYSSES)

In alignment with the commitments of NASA's Office of Space Science and Sun Earth Connection Forum, Ulysses has substantially contributed to scientific, mathematical, and technical literacy by carrying out a comprehensive education and public outreach program. The entire NASA/ESA Ulysses

project management and science teams are actively involved and committed to carrying out a meaningful, effective, credible, and appropriate E/PO program to enhance K-14 science education and to expand public understanding of science.

Over the past two years, the Ulysses Project has created learning opportunities so as to inspire America's students and to enlighten inquisitive minds. The project has leveraged its extremely limited E/PO budget by partnering with others and participation in established programs. Participation in the following programs describes how the project meets or exceeds NASA's E/PO goals.

14.3 Plans for FY04-07-Engaging the Public:

The NASA/JPL Solar System Ambassadors Program is expected to expand from its current 275 volunteers (2002) by 15-25% each year with a 4-year goal of 2-3 additional Ambassadors per state. Ulysses will conduct a minimum of two trainings each year. Ambassadors will be exposed to key personnel while examining new science results from the Ulysses Mission.

Working with the Space Place, Ulysses project management and the Science Directorate at Marshall Space Flight Center Ulysses will develop an activity for the site. The proposed activity will be based on the Solar Spitwad article from the Science @ NASA website. Ulysses EP/O materials and exhibits will be rotated to participating Space Place partners. Average exposure is expected to be 50,000 people per year at one partnering center.

"Community Nights" a partnership with the Arizona State University Mars K-12 Education Department, Ulysses project proposes participation in the development of Solar System kits. These kits will be beta-tested in mid-summer 2003 by 100 Girl Scout Troops throughout the United States and will include information regarding the Ulysses mission and SEC science. The portable exhibits can be loaned to educational facilities, community organizations and other NASA EPO partners.

We will also partner with the Deep Space Network (DSN) and other JPL projects in the Barstow Space Expo for educators and students near the Goldstone facility. view and provide activities related to the SEC missions and the roadmap.

14.3.1 World Wide Web:

The Ulysses Project team will continue to maintain and update the website on a quarterly basis. Plans include new on-line activities, additional educational resources and updated science news.

14.3.2 Public Information:

Working with NASA and JPL media office, Ulysses plans for press releases on Solar Maximum and the Far Jupiter Encounter. Ulysses Science Team members will submit at least 3 science nuggets a year to the Science Directorate at Marshall Space Center to be included in the [Science@NASA](#) website.

14.4 Informal Education:

By providing opportunities of K-12 teacher training, enhancing curriculum and engaging students in NASA related career fields, the Ulysses project plans to support Presidential Executive Order 13021 Tribal College, Tribal Pre College Initiatives The project will work with the JPL Tribal College Initiative in the Minority Education Initiatives in the Education and Public Outreach Office.

The Ulysses Team at JPL will continue work with the LA's Best program expanding school visits to 8-10 each year. Team members will continue to engage local schools in the yearly Sun-Earth-Day activities with a commitment to collaborate more with our ESA partners and Goddard Space Center Student Observation Network (SON) on student research and activities.

14.5 Conferences/Workshops

Continue to support educational conferences requiring

NASA Center presence, i.e., NSTA, CSTA, and Space Congress.

14.6 E/PO Products

The project will develop products to support the education and public outreach programs. These will include, as appropriate, brochures, decals, educational content for web sites and package paraphernalia for conferences and workshops. Educational content will also be made available on CDROMs which will be distributed through the NASA Education Resource Centers and through distribution to schools involved in the various E/PO programs in which the Ulysses project is involved.